

Amendments to the Drawings:

The drawing sheet attached in connection with the above-identified application containing Figures 1 and 2 is being presented as a new drawing sheet to be substituted for the previously submitted drawing sheet. The drawing Figure 2 has been amended.

Figure 2 has been amended to include the label "Prior Art."

REMARKS

Claims 1-15 were pending in the application. Claims 1, 2, and 6 have been amended. No claims have been cancelled. Claim 16 has been added. Therefore, claims 1-15 are pending and submitted for reconsideration.

Abstract

The Applicants have amended the Abstract in accordance with the Examiner's request. Specifically, the Applicants have amended the Abstract to remove the term "means" and the phrase "The invention relates to" as requested by the Examiner. The Applicants respectfully request reconsideration and withdrawal of the objection.

Specification and Drawings

Applicants have amended the specification to fix a minor informality. The Examiner objects to the drawings for failing to comply with 37 CFR 1.84(p)(4). On page 7, the numerical reference "10" has been replaced with "20" in order to properly designate the protection means. Additionally, Applicants have amended Figure 2 to include the legend "Prior Art." Applicants respectfully request reconsideration and withdrawal of the objections.

35 U.S.C. § 102(b) Rejection: Yashima

Claims 1-3 and 12 are rejected under 35 U.S.C. § 102(b) as being unpatentable over U.S. Patent No. 4,505,618 ("Yashima"). Claim 1 has been amended. The rejection should be withdrawn for at least the following reasons.

Yashima fails to teach or suggest a flexible riser or loading system that includes, among other things, a "protecting means being formed of a plurality of separate units suspended from each other," as required by amended claim 1. Yashima discloses an offshore structure 10 with a riser 4 and a tubular protector 6. *See* Yashima at col. 2, lines 6-21. The protector 6 consists of a *single*, rigid body with a tubular shape. *See* Yashima at Figs. 3 and 7. The protector 6 is clearly not formed of a "plurality of separate units suspended from each other." Thus, Yashima fails to teach or suggest each and every element of claim 1.

Additionally, Yashima fails to teach or suggest a flexible riser or loading system that includes, among other things, that the protection means is “configured to retract to a protected position below the sea surface together with the riser when the riser is in the non-operative position” as required by claim 1. The joints 7B on the lower part of the protector 6 are fixed by wires or chains to the legs 3 of the structure 10 or to the pontoon 2 of the structure 10. *See* Yashima at col. 2, lines 31-35. The fastening of the protector 6 to the legs 3 or pontoon 2 clearly prevent the protector 6 from retracting to a protected position *below the sea surface together with the riser* when the riser is in the non-operative position. The protector 6 is positioned between the platform 1 and the pontoon 2, and is connected by fastener members 8, such that the protector 6 could not retract below the sea surface with the riser when the riser is non-operative. *See* Yashima at Fig. 1. Furthermore, in the embodiment shown in Figures 6-8 of Yashima, the protector 16 is permanently and rigidly mounted to the platform 11 of the structure 20. *See* Yashima at col. 3, lines 22-25. Therefore, Applicants respectfully request reconsideration and withdrawal of the rejection.

Claims 2-3, 12, and new claim 16 depend from claim 1 and are allowable therewith, for at least the reasons set forth above, without regard to the further patentable subject matter set forth in these dependent claims.

35 U.S.C. § 103(a) Rejections: Yashima & Travis & Wiener

Claims 1-6 and 8-15 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Yashima in view of U.S. Patent No. 4,844,213 (“Travis”). Claim 7 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Yashima in view of Travis and U.S. Patent No. 2,859,836 (“Wiener”). The rejections should be withdrawn for at least the following reasons.

None of the references, taken together or separately, teach or suggest a flexible riser or loading system that includes, among other things, a “protecting means being formed of a plurality of separate units suspended from each other,” or that the protection means is “configured to retract to a protected position below the sea surface together with the riser when the riser is in the non-operative position” as required by claim 1. Yashima discloses a *single* protector that does not have separate units suspended from it. Furthermore, Yashima does not disclose a protector that retracts below the sea surface together with the riser when

the riser is in the non-operative position. Travis and Wiener fail to cure the deficiencies of Yashima. Travis merely discloses an energy absorption system for an automobile. Travis does not disclose a flexible riser or loading system comprising a protecting means for a riser, let alone a protecting means that is “configured to retract to a protected position below the sea surface.”

Further, the Examiner contends that it would have been obvious to one of ordinary skill to modify Yashima by substituting the protection means as taught by Travis in order to protect the riser from ice floes and to absorb vertical energy from waves. *See* Office Action at p. 4. To the contrary, Applicants respectfully submit that a person with ordinary skill in the art for designing protection means for offshore riser structures to be used in arctic waters is *not* the same as the person having ordinary skill for designing energy absorption systems for highways. Additionally, if Yashima is modified to include the protection means as taught by Travis, the protection means would then render the structure and protector of Yashima unsatisfactory for its intended purpose. *See* MPEP 2143.01. The protection means as taught by Travis would not be able to protect a riser. Also, the result of the modification would be a platform with a permanently attached protection means which is intended to go through a permanently plastic deformation when subjected to impact. Thus, the protection means will have to be removed after deformation and a new protection means will have to be installed. Furthermore, there is no teaching in Travis that the protective means 14, 16, 18 will function when subjected to lateral forces. Wiener merely discloses a vibration dampener for towed cables. *See* Wiener at col. 1, lines 19-22 and Fig. 4. Wiener fails to teach or suggest a riser and a protection means. Thus, Applicants respectfully request reconsideration and withdrawal of the rejections.

Claims 2-15 and new claim 16 depend from claim 1 and are allowable therewith, for at least the reasons set forth above, without regard to the further patentable subject matter set forth in these dependent claims.

Conclusion

Applicants believe that the present application is now in condition for allowance. Favorable reconsideration of the application, as amended, is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check or credit card payment form being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicants hereby petition for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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